# What's New in GRIN-Global?

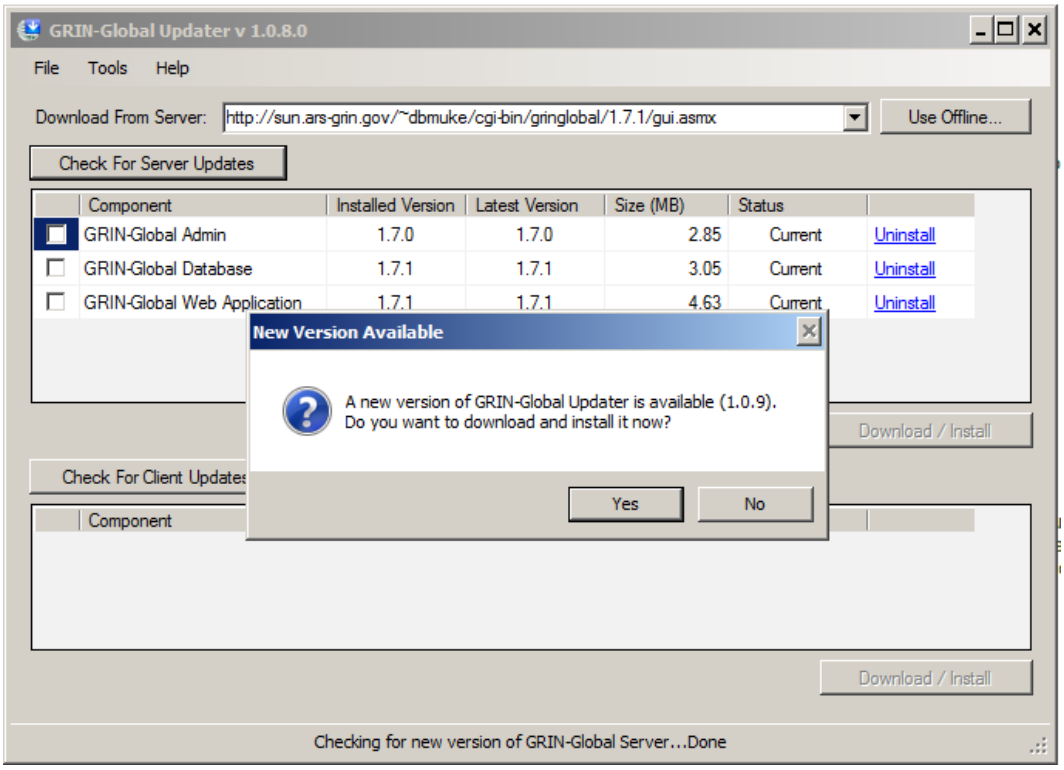
**Revision Date: January 13, 2014**

Many enhancements have been made to GRIN-Global since version 1.0 was released. This summary contains detailed explanations of these new features.

Also, additional information is available on the GRIN-Global website's Training page. There are links to updated documents including a Curator Tool User Guide as well as a Frequently Asked Questions (FAQ) document. (We recommend *not printing* these documents updates are made regularly; instead, bookmark the link as that link address will remain fixed.)

## Version Numbering Changes

Starting with GG release 1.5, we have begun to label the GG server and Curator Tool (CT) components with their individual release numbers. The new server release which includes the latest schema changes is release 1.7.x; thes current Curator Tool release that is currently available is 1.8.33.




Note: the Updater may indicate a new version is available. Only its version number has changed, (not its functionality), so if you have a working Updater you can click "No" to the download and install a new Updater question.

### Known Issues Not Yet Addressed in this Version:

- Many data triggers are to handle specific business rules are needed in the Middle Tier. These can be turned on/off depending on site requirements.
- Crop Trait and Image Wizards

- Language translations need to be updated for the new fields and tables included in the updated schema
- Support for database engines other than MS SQL Server has not been addressed since 1.0

## Schema Changes

Changes made to the schema based on feedback from users throughout the U.S. National Plant Germplasm System (NPGS). Because of the schema changes, many dataviews required modification and testing.

### *Accession-Inventory Table Consolidation*

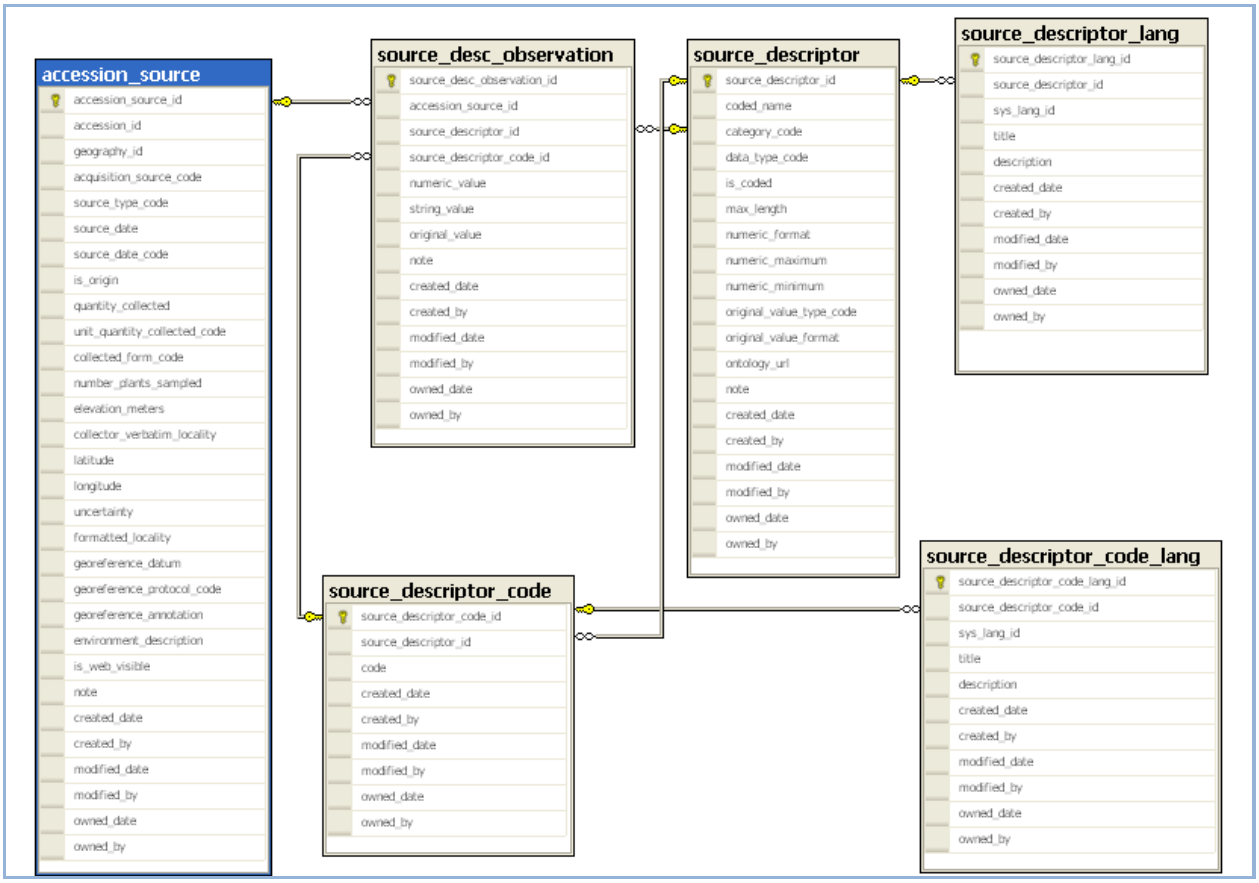
This latest schema has been streamlined to eliminate some redundancies that existed in GG 1.0 between the accession and inventory tables. The changes starting with 1.5 primarily involved the rearranging of several tables. A detailed explanation and diagram of these changes is included later in this document. (See accession inventory- tables.)

### *Source / Habitat Tables*

The GRIN-Global (GG) development team added the Source Descriptor tables (and dataviews) to the GG 1.9 schema to accommodate future expansion of source habitat descriptors. The Accession Wizard was also modified to display and accept the inputting of source observations using these source descriptions.

In the Curator Tool, in addition to the original accession_source table, there are now five inter-related habitat dataviews:

- Source / Habitat Data
- Source / Habitat Descriptor
- Source Descriptor Lang
- Source Descriptor Code
- Source Descriptor Code Lang




The GRIN-Global database can now handle a virtually unlimited number of descriptors for describing the growing conditions from where the sample was collected, including the biological, ecological, and geological conditions of its habitat. GG 1.9 will be able to integrate the georeferencing, habitat, biotic and abiotic soil conditions, sampling, genetic data for documentation of wild plant genetic resources, and a multitude of other conditions and factors relevant to fully document the source collection event.

### *Order Wizard*

The Curator Tool also has a new Order Wizard which facilitates the ordering process. The Order Wizard provides a set of comprehensive screens in which new order records are added to the GG database, either manually when incoming orders come via postal mail, emails, verbally, or by converting the incoming web order records when the orders come from the Public Website.

Order Wizard Modifications:

- Uses the **NEW** code_value for order_request_item.status_code (NOTE: "null" is no longer used by the Order Wizard for determining a new order_request_item (all existing order_request_item data with a "null" in the status_code needs to be converted to a supported code)

  Four new codes were added to the ORDER_REQUEST_ITEM_STATUS code group:
  INSPECT, NEW, PENDING, QUALITYTEST

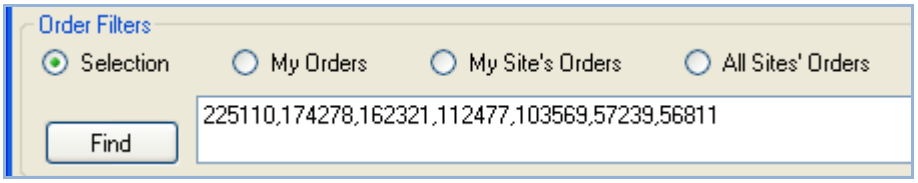
- Enhanced the "Ship All Remaining" button to sweep through all records marked as **NEW** or **PENDING**

- Created a new Lookup Picker specifically designed for the Order Wizard to ease the process of choosing an inventory record for the order_request_item

- Order Actions are auto-generated when a new order is created (either by web order conversion or clicking the "+" button) or when a status_code changes for any order_request_items

- The user can now select multiple checkboxes before submitting a find request to find matching orders – this includes a new **Find** button that triggers the request. The filtering has also been enhanced to include the Ordered Date (text field that accepts date wildcards) and Order Type (dropdown list)

- The **Selection** radio button now displays the orders_request_ids in a textbox. This textbox can be changed by the user (delete, add, etc.) using space, tab, return, or comma separation between order numbers




- Added multi-column sorting to the Order Request Items datagridview (right-click the column header to expose the sort context menu)

- Items marked as **INSPECT** or **SHIPPED** will auto-deduct. NOTE: in the case of a status_code change from **INSPECT** to **SHIPPED** (which is what happens when the Plant Inspection Office ships the order to the final recipient) the auto-deduct will not happen again eliminating double booking auto-deducts for **INSPECT** items)

- Splitting an order creates a second order with the split out order_request_items, creates two order_request_actions (one for the original order and one for the new order), and marks the new order_request.original_order_request_id as the original order primary key

- Sending order items to Plant Inspection (status_code = **INSPECT**) will create an order_request_action

- Sending order items to Quality Testing (status_code = **QUALITYTEST**) will create a **DUPLICATE** order for the selected order_request_items, creates two order_request_actions (one for the original order and one for the new order), and marks the new order_request.original_order_request_id as the original order primary key

- When the completed_date is populated in the order header there is an action added with a action_code of "**DONE**"

- **Total Cost** is now being calculated for costs captured in order_request_action table's action_cost field

- Added a checkbox "**My Site's Accessions Only**" to the Order Wizard Web Order Tab – basically this will split the web order up by site if it is left checked – this functionality is necessary when an order contains accesions maintained and/or shipped from more than one active site

- Cancelling all order_request_items in a new order will properly populate the order_request completed_date using direct datagrid edits or the context menu

### *Search Tool*

The Search Tool is no longer limited to just the four main resolvers (accession, inventory, orders, or cooperators). The Search Tool now allows searching for, and resolving directly to, any object type (table primary key). This is accomplished by specifying the table explicitly or by automatically resolving the search to the primary key of the current dataview.

The Search Engine used by the Search tool was rewritten to improve searches involving multiple criteria from multiple tables.

### *Accession Wizard*

The Accession Wizard has been modified to provide added support for the:

- new **accession_inv_name** table in the Name tab
- new **accession_inv_annotation** table in the Annotation tab
- new **accession_voucher** table in the Voucher tab
- **accession_source_map** table in the Source tab
- **source_desc_observation** table in the Source tab

### *Minor Changes*

Some tables had slight modifications:

- crop_attach
- crop_trait_attach
- crop_trait_code_attach

- order_request_attach
- order_request_item
- inventory_maint_policy
- inventory
- inventory_action
- inventory_viability
- inventory_viability_data
- inventory_viability_rule
- taxonomy_crop_map
- crop_trait_observation_data
- inventory_quality_status
- genetic_observation
- The citation-map dataview was deleted and the citation dataview was expanded. (In GRIN-Global , any table with a "-map" suffix is a table that provides a mechanism for many-to-many relationships.) This change was necessary because of a 900 character SQL Server limitation for unique keys.

### *Lookup Picker Changes*

- Modified the date format used by the Lookup Table Updater, Accession Wizard, and Order Wizard so that it would work properly with the US (MM/dd/yyyy) and international date formats (dd/MM/yyyy). Users can now use the enter key at selection; they no longer need to click the OK button (OK is still an option).

- Fixed a bug in the Lookup Picker that would attempt to create a duplicate filter if the same is_* column existed in both the LU table and the dataview being viewed in the Curator Tool

- Enhanced data rendering by pre-loading Lookup Picker Dictionary entries during the read-only datagridview build process

- Enhanced the standard Lookup Picker to process two additional events: "double-clicking" or pressing the **Enter** key – to behave the same as clicking the **OK** button

### *Dataviews*

Multiple dataviews were refined with heading name changes or field additions, per the request of testers. New features have only been tested under the MS SQL Server database; some functionality may not be present using other database engines. Many dataviews now include additional parameters in order to reduce extraneous rows being displayed in certain circumstances.

### *Language Support*

A procedural guide has been written which details the steps an organization should follow if the organization intends to add a language not already included in the distributed version of GG. (In the 2.0

version, English, Spanish, French, Russian, and Arabic will be included. The 1.9 version needs some additional translations to accommodate the new fields added since 1.0.)

### *NPGS-specific tables*

In the U.S. NPGS-specific tables were included:

- site-specific inventory tables to complement the main GG inventory table. (Some NPGS sites maintain additional inventory data.)
- "phyto" log (order_request_phyto_log) table for tracking the status of accessions being reviewed for their phyto certifications
- exploration-table for tracking germplasm exploration projects

Other organizations implementing GRIN-Global may decide to review these for possible adaptations for their organization.

### *Reports*

Many reports have been added to the Curator Tool since 1.0 release. Additionally, a Report menu option was added to the Public Website. Organizations can use this Public Website report option to supply HTML-based reports as desired. Reports can be defined to be either internal (restricted to specific User IDs, or external (the general public).

## Curator Tool 1.9.x

### *Dynamic Folders*

One of the most significant changes to the Curator Tool is the new Dynamic Folder feature. In earlier versions of the Curator Tool, only Static Folders were supported. In a Static Folder the list never changes unless the user manually modifies the contents of that Static Folder (by adding or removing items from that folder). With Dynamic Folders, the user supplies search criteria by dragging the Search Tool criteria onto a Static Folder to "convert" it into a dynamic list. Because the Dynamic Folder has the search criteria embedded as a property, every time the user clicks on that Dynamic Folder the Curator Tool automatically requests a revised search and generates a new list based on the search criteria.

The Dynamic Folder is most useful for maintaining lists that are in constant flux (like lists of a site's "NEW" orders – as orders are processed and "SHIPPED," the Dynamic Folder automatically adjusts the list so that the "SHIPPED" orders are no longer listed in the datagrid.

Enhanced the default behavior of the dynamic treeview nodes so that when the property is set to use the default resolve-to, a request is made to the Search Engine to resolve to the same primary key as the currently selected dataview in the Curator Tool

### *Treeview List Items Enhanced to Support other Object Types (beyond the original seven)*

In the previous versions of the Curator Tool, there were seven object types on which to base lists. For example, you could create a list of Accession items or Inventory Items. But unless you started with one of those seven types, you could not create lists directly. For example, you may want to track a list of Accessions, primarily based on their assigned names. Now you can drag from the ST or the CT data grid the accession_inventory_name records, and make a list based on these plant names.

### *Tools Menu Option*

A new **Tool** option was added to the main menu. Two tools were added in this release:

- Reset Treeview Lists
- Reset User Settings

The **Reset Treeview Lists** option does what its name implies: all Tabs in the List Panel are deleted. This is especially useful when testing or training. (Note: the GG developers intend to create a more robust Tab/List management system and foresee that included in a future CT release.)

The **Reset User Settings** option does what its name implies. The settings include the items set in the **Other Options** tab in the right panel as well as the dataview tabs (other than the four basic ones: Accession, Inventory, Orders, and Cooperator).

## Web Tool (Public Website)

The Taxonomy detail page was enhanced, including recognizing more taxonomy synonyms. Also, accessions with rare taxonomies are hidden when the user displays the google map page.

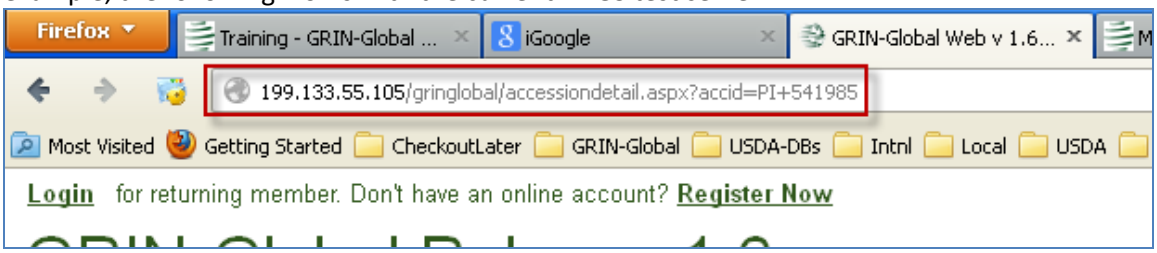
A "Help" item was added to the GRIN-Global menu. Help information has been included currently for several search types; additional help text will be elaborated.

The logic for the advanced search was enhanced to include additional searches, including (among others):

- PI range single entry case
- accession source original location
- inventory availability status code

### *URL Searches*

The accession detail page can now accept accession alternate key information supplied via the URL. For example, the following works with the current NPGS test server:




The search webpage now accepts and processes advanced query statements from the URL. For example, the following statement will execute a successful search:

> training.ars-grin.gov/gringlobal/search.aspx?aq=@accession.accession_number_part1='PI'
> and @accession.accession_number_part2 >= 500000 and
> @accession.accession_number_part2 <= 500100&lim=2500

The URL syntax structure is fairly straightforward if you are familiar with the search criteria statements generated in the Curator Tool. The syntax is fully explained in the Web online Help file.

### *Other Web Page Modifications*

The descriptor search page now can also include passport criteria to build a more focused search.

The My Favorites page was enhanced in several ways, including: a **Select All / None** button was added. Also, user notes can now display on multiple lines.

A Report menu was added and populated with sample reports. Also, a feature was added that provides users who have been added to the Web Query Group by the GG administrator to be able to run SQL query statements.

This version corrects a google map truncation problem associated with certain locality data.

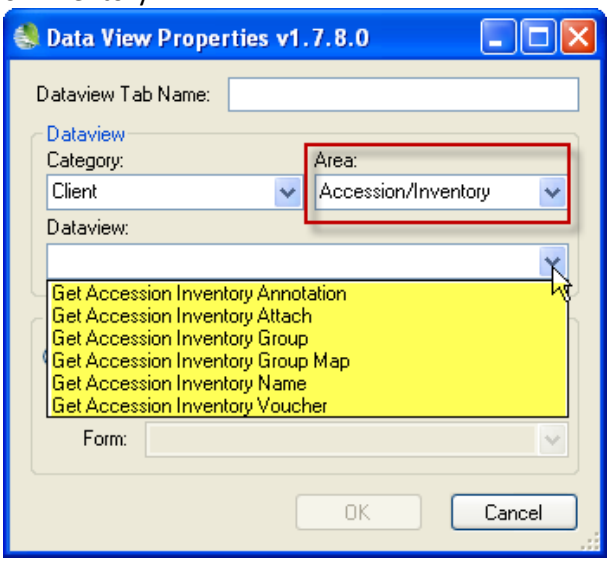
The accession detail page was modified to include the accession_ipr citation and new accession source descriptor content.

## Details of the Consolidation of Certain Accession Inventory Tables

In GG release 1.0, there is an accession_name table as well as an inventory_name table. Starting with GG server version 1.5, the accession and inventory name tables are merged into one table, taking advantage of the fact that every accession is associated with at least one inventory record. A "Name" record can be associated with either the accession's system-generated inventory record, hence applying to the accession in general, or associated with a specific inventory record.

The diagram on the next page illustrates the schema's table changes. The new table names reflect this change – they now incorporate both accession and inventory as part of their name: accession_inv_ ... Other tables that can be associated with either an accession or a specific inventory were also renamed: the accession annotation and voucher tables as well as the inventory attachments and group tables will be renamed in 1.9 to adhere to the accession_inv_... naming convention.

Also, in the Curator Tool, we established a separate area for those dataviews that can access accessions or inventory:




We made code changes to GRIN-Global to adapt to this new schema: Pertinent dataviews in the Middle Tier and the Curator Tool's Accession Wizard were modified to handle the new schema; the Public

Website was also modified to accept the schema changes and simultaneously some additional search capabilities were included.